



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
10.07.2002 Bulletin 2002/28

(51) Int Cl.7: **H04N 7/26**

(21) Application number: **01130063.9**

(22) Date of filing: **18.12.2001**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR
 Designated Extension States:
AL LT LV MK RO SI

- **Hobson, Paola Marcella**
 Alton, Hampshire GU34 2SQ (GB)
- **Dolbear, Catherine Mary**
 Reading, Berkshire RG31 7HW (GB)

(30) Priority: **20.12.2000 GB 0031085**

(71) Applicant: **MOTOROLA, INC.**
Schaumburg, IL 60196 (US)

(74) Representative: **Treleven, Colin et al**
Motorola European Intellectual Property
Operations,
Midpoint,
Alencon Link
Basingstoke, Hampshire RG21 7PL (GB)

(72) Inventors:
 • **Hare, Jonathan Stephen**
Tradley, Hants RG26 3UA (GB)

(54) **Video transmission system, video transmission unit and method for watermarking**

(57) A video transmission system (100, 200) comprising a discrete cosine transform function (104, 208) receiving an unwatermarked video signal transmission and means for applying a watermark coefficient to the video signal transmission output from the discrete cosine transform function to protect the integrity of the video signal.

A video communication unit, a tamper detection method and methods for watermarking and recovering

watermarks are also provided.

Such concepts provide for watermarking of SNR enhancement layers for scalable compressed video and allow only the user with the correct key to recover the watermark, thereby stopping any possibility of a collusion attack on the sequence to remove the watermark or discover its contents. Hence, it is useful in tamper detection applications such as authentication or copyright. Furthermore, it provides a means of fragile watermarking that allow attacks to be characterised.

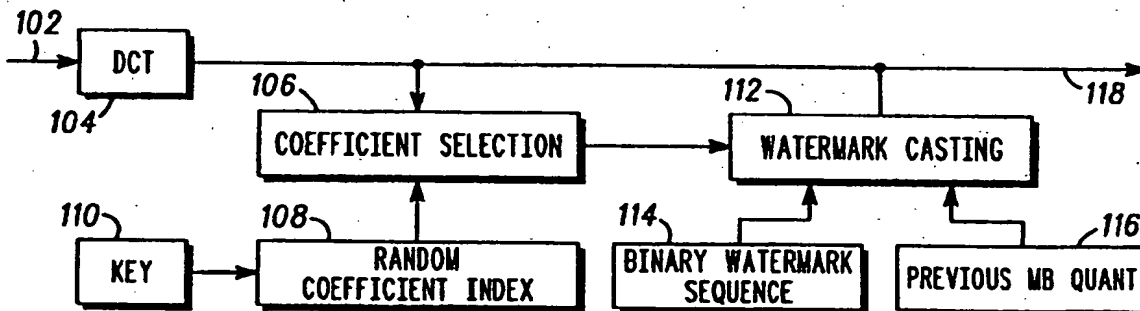


FIG. 1 100